

OBSERVATIONS ON THE NESTING BEHAVIOUR OF THE RUFIOUS WHISTLER

By Mrs. RICA ERICKSON, Bolgart.

Last Christmas morning (1948) I watched a Rufous Whistler (*Pachycephala rufiventris*) in a jam tree thicket where he lived. His white throat swelled in a burst of song ending on the familiar "joy joy joy." Then he ealled "ee-ehong ee-ehong." In his next burst of song the preliminary notes seemed to come from two birds. Then I saw within a few yards of each other, both with throats swelling, the Whistler and his mate indulging in a short conversation piece (reminiscent of two Mudlarks) which he closed with lengthy brilliant trilling. Hers was but a minor part and not much sustained. She sang "sweet, sweet" to his "sweet sweet" and called "ehong" gently in answer to his ringing "ee ehong." They interspersed their similar calls of "jip jip." But she didn't sing the long purring trill nor the "joy joy" notes.

The *Handbook* (Serventy and Whittell, p. 256) says "it is he alone who sings." So that afternoon I returned to watch and listen. The male always dominated the performanee, but *she* was *not* silent. Then I saw him fly to a jam tree and (after hopping from twig to twig) sit on a nest seareely two feet beneath the leafy roof top of a jam tree less than 30 feet high. The nest was made apparently of fine grasses and fibres. The weaving was very open spaced and seemed too fragile. But the walls were built for ventilation and were well suited for summer nesting.

During the afternoon both birds sat on the nest for short intervals. They were more often off the nest than on. He was more assiduous than she, generally arriving on the nest soon after she vaeated it. She dallied abroad long after he left it. But it was the hen who was sitting at dusk. At that height I couldn't decide whether one or two eggs were to be seen through the gaps in the nest.

The brilliant displays of whistling were most obvious in the early morning. They were the first bird songs, antieipating even the Kookaburras. During the day the songs were full of joyous abandon.

On New Year's Day one egg was hatched out. That was known by the occasional feeble movements of the tiny naked wings as seen through the floor of the nest. In two days the baby had grown noticeeably and by January 5 I was fairly sure there were two ehieks growing swiftly. The parents fed the babies alternately and he brooded for longer periods over them than she did. He was the bolder bird throughout the whole period of observation. At this time I noted again that both birds sang, answering each other like a conversation ehorus. Also both gave little songs from between closed beaks before approaching the nest with food for the young. While the female with a beakful of food for the babies was waiting for the male to depart from the nest her low melody seemed to say: "Do be in a hurry, Joe." From many chains away

both parents always called "sweet sweet" or "cheep cheep," as they approached with food. After leaving the nest the female would always perch awhile and call a plaintive "chong chong chong"—as though calling her mate. At other times she seemed to sing "I will be quick, pretty Dick" or a ringing "jip, jip," which is a somewhat different call from the rounder notes of "cheep cheep cheep."

By January 7 one baby was big enough to thrust its head and outstretched neck over the edge of the nest. They were silent as yet and it was only on January 9 that a faint "cheeping" could be heard from them as they jostled and gaped for food. Up till this time both adult birds sang freely.

I didn't visit the nest again until January 15. Then a tailless, partly feathered baby was seen perched silently on the edge of the nest. As it grew hungry it voiced the ghost of a "cheep," a faint but musical and round copy of its parents' call. It repeated this steadily every two seconds for a minute or two. (The parents' answering "cheep" was loud and piercing by contrast.) Soon a similar faint call sounded from a jam tree more than a chain away, a call pitched about two notes higher. There I found the tailless, elder baby. It had travelled through three trees and bridged a gap of 6 feet. The two babies then conducted a monotonous conversation on two notes—"doh, me, doh, me, doh, me," a note every second, the bird on the nest singing "doh." At intervals one would whisper "sweet chip." Throughout that afternoon the female fed the older baby only. The male tended the nestling exclusively.

All that day I listened in vain for the usual vocal display by the parents. But both would call only, "cheep, cheep; cheep, cheep, cheep." And the babies learnt to answer faintly.

On the next day I could find neither female nor her chick, not a sound from either though I searched more than an acre. The nest, too, was empty; but I found the male foraging among the tree tops in the usual feeding area. He, too, was silent and I had to watch assiduously before I found where he was feeding the younger baby. My ears had not detected its faint "cheep, cheep," though I was only a chain away. It, too, though tailless and nervous had bridged a space of 6 feet or so and was many trees away from the nest. But it had grown apace and promised to grow faster for the parent stuffed down its neck two inches of a stick insect's abdomen.

The young Whistlers left the nest on their fifteenth day (January 15) and until mid-February it was very difficult to find any of the birds. The male whistled so rarely the brief notes scarcely guided me to him. The female was almost silent. The easiest method of locating them was to listen for the faint "cheep, cheep" that the young birds repeated in their "doh-me" style. The birds had forsaken the jam tree thicket. It had been excellent shelter for a nursery and a safe place in which nestlings may learn to fly but it was not a good larder. So when their tail

feathers grew and the young birds were proficient on the wing they all kept to the tops of wandoo trees and were particularly hard to see, especially if they remained silent and still. One guide I learnt too slowly to accept was the presence of a Red-capped Robin and his family. Very often after easily sighting these birds at a convenient eye level the Whistlers could be found high in the foliage above them. (Later when Whistlers were *singing* their territorial challenges it was amusing to see Red-caps *fighting* nearby.)

The male Rufous Whistler, although strikingly coloured with his white throat, black neck band and rufous abdomen, is perfectly camouflaged when high in a wandoo tree. An observer looking upwards sees a pattern of white patches of light and black shadowed twigs against reddish bark. Enemies from above would be as readily deceived by the inconspicuous grey back. The female and young birds are even harder to detect. The difference between these is noticeable. The female is more robust than the young and her lightly streaked throat and faintly rufous abdomen are sufficiently different from their strongly streaked grey underparts. She is far shyer and generally is to be seen only while attending to the young birds. In flying away from me she consistently puts a tree between us and so I lose her. The young birds were unafraid like the male. By the end of February their calls had grown stronger and though foraging efficiently for themselves I saw each begging for food with gaping mouth and fluttering wings. Both parents fed the young but seemed to care for a particular baby each.

During this comparatively silent period the male's calls were "jip," "ee-jip" and "swt ehrry jp." The female called less and less often before feeding the babies and was heard to whisper "sweet cherry" only once. The young birds' call had grown stronger and more persistent so that it was becoming easier to find them.

They caught a variety of insects and grubs but were specially proficient in picking from the foliage what is probably the ant lion lacewing (the funnel traps of the ant lion larvae thickly dot the ground beneath the wandoo). These insects gave the birds the problem of breaking off the long wings or arranging them suitably for swallowing. Often in this process the insect was dropped and retrieved in a flash.

During March the birds were to be seen most often in a family group at midday foraging in a belt of wandoo timber that stretched between our house and their nesting area. When the young birds were about ten weeks old the male parent began whistling more frequently. One midday, hearing an unaccustomed lengthy whistling of the notes "ee-jip" and "swt ehrry jp" I found him following his mate closely wherever she flew. She led him from tree to tree until finally they joined the young birds and fed them high among the branches. Once during this episode she sang "sweet, sweet." She was quite silent during the next ten weeks.

At this time, too, I first noticed the activities of other Rufous Whistlers about the nest area. On March 2, early in the morning,

the male's "swt ehrry jp" songs were answered by a bird in the timber along the creek. This distant duelling by song was repeated for several days.

On March 8, a bright still morning, while I was intent on tracing the cheeping "doh-me" calls of the young birds, a silent male landed with a flutter of wings in a jam tree near my head. At the same moment a few chains away, a male called imperiously "sw ehrry sw ehrry jp." This latter bird then charged in swift pursuit of the fleeing silent male. The parent soon returned and the family resumed their feeding. They were unusually low in the branches of York gums and jam trees, and for the first time I saw a Whistler fly to the ground for food. The next day while the family were together the male parent exchanged the short bubbling notes of the "swt ehrry jp" challenge with the unseen intruder. But on March 11 at midday the intruder was foraging with the family. The two males were whistling "swt ehrry jp" but remained at peace. The intruder tried persistently to attach himself to the family party.

At 7.30 the next morning the two adult males gave such a display of rage hard to imagine. They were a little south of the nesting area flying constantly between two wandoo saplings a couple of chains apart. They chattered and whistled defiance as they shuttled between the trees so ceaselessly it was hard to tell which was chaser and which was chased. They whistled "swt ehrry jp" even on the wing. A Willy Wagtail nearby added his clamour of chattering (very like theirs) and a baby Whistler flew high in a dead tree to add his cheeping to the din. He grew so excited his call swelled almost to a full sized "jip." After about fifteen minutes the rivals declared a truce. The parent flew a little towards the nest. The intruder withdrew a little to the south and all began to catch insects as though nothing had happened.

Two days later while I was watching the male parent feeding his chick I saw an intruder and his mate pass unobtrusively through the scene of the dispute towards the east. The adult males exchanged calls but took no further notice of each other. At the same time I heard a male whistling further south and another to the west. Then for a fortnight of hot, windy weather there was neither sight nor sound of the strangers.

At eleven weeks of age one of the young birds had learnt to whistle "swee jip" with unpraetised loudness. The male parent then shook himself free of his son's begging by chasing the youngster away. However he was still accepted at family gatherings and was allowed to roost in the nesting area. He was often heard in the timber to the east near the house. He learnt to whistle other notes and would stay in a dead tree of an evening to praetise them on his way home. Sometimes the parent casually whistled nearby. Sometimes the young bird would sing only the one note again and again, "sue sue sue sue sweet." But he gathered polish and sweetness daily.

On March 22 during early morning I watched him in the nest area as he ran through his repertoire. The male parent was preen-

ing himself near at hand and occasionally interpolated a note or two. The young bird sang the notes separately between catching insects, "jip," "sue," "swt" and "cherry." Finally he capped the rehearsal with the whole challenging phrase, "sweet sue swt chrry jp."

The first showers before winter seem to influence the birds towards aggressive display. Or is this the time the pairs of birds and their young reshuffle their territories and adjust boundaries to suit the changing population's needs? At 9 a.m. on March 27 following a showery night there was a din of whistlers in the jam tree thicket just north of the nest. The Whistler from the creek had advanced along a point of timber towards them. He was whistling excitedly but failed to fly across the stubble that intervened. There was a young cheeping Whistler, a female feeding another youngster and a second female flying with some males. I heard several males but stayed to watch two in particular. These slowly approached each other whistling the long bubbling "swt chrry swt chrry jp" song. When within a few inches of each other the song slowed to a more liquid very melodious version of the same call. As they faced each other and sang thus together in competition they bowed and fanned up their tail feathers. For many minutes they continued moving from twig to twig and tree to tree, bowing and whistling the slow melody—"sweet joey cherry sweet joey sweet." There was no violence and finally the intruder followed where his mate had gone to the north-west. The rightful occupant of the territory moved a little towards the nest and began preening himself. The next two mornings I watched in vain for intruders and a repetition of this display.

I was absent for a fortnight and on my return (mid-April) found the second pair of birds were firmly established in the thicket to the north of the nest. The two males kept at whistling distance and if one approached the boundary limit the other worked towards it too. If they met they gave a bowing display with the slower whistling. Both males were closely followed by their mates. When the new female strayed too far afield her mate called her—a summons she promptly obeyed. This new female was quite bold and easy to observe, but the first female remained as shy as ever.

The Whistler along the creek was also accompanied by a mate when he extended his excursions into the house timber. He sang his challenge to a male who claimed the timber south of the house.

It was not till the early morning of April 25, when a heavy mist made everything wet that I saw the young birds in this month. At sunrise when the mist cleared away the Whistlers were unusually vocal. In the house timber the slender male intruder was whistling in competition with the young male. The latter's plumage had grown rufous on the abdomen, the throat was streaked prominently as before, but where the black band will be in the future he had a wider dark grey plumage. Closely following him was the shy young female garbed as before. Having watched them

for ten minutes I hurried to the nest area where several birds were whistling the challenge song.

There were two males and a female together in a York gum near where the past bowing display had been performed. All three birds were whistling. First, a short bubbling eall was repeated several times—begun by a male and finished by the female. It was so neatly done that if I hadn't found the observation confirmed each time, if I hadn't seen her attitude and swelling throat, I would have believed the male alone sang it. Then the three birds began a competitive whistling with beaks but a few inches distant from each other. This time the female's song was definitely independent, a vigorous and virile challenge like the males'. There was no elaborate bowing as formerly though the bodies were tense and feathers extended.

Having noted the young male's plumage just prior to this as being still slightly different from a female's I had no doubt of this Whistler's sex. When she became aware of me she more definitely identified herself as the shy original female, by hastily flying towards the nest, dodging behind a tree and hiding herself. The original male continued the challenging song with the intruder who later left the tree and joined his mate who was nearby feeding and preening. These two then withdrew along a line of trees to the west.

PHENOLOGY—A NEW FIELD FOR AUSTRALIAN NATURALISTS

By J. GENTILLI, Nedlands.

Anyone familiar with that triumphant awakening of nature that is the nordic spring can easily understand why springtime means so much to the British, the Germans, and above all the Seandinavians. The longer has Nature's winter sleep lasted, the fuller and more overwhelming will the awakening be in spring. It is perhaps unusual to refer to music in scientific writing, but it should be mentioned here that the expression of springtime feelings and longings is perhaps most effectively embodied in Sinding's popular "Rustle of Spring"—a composition inspired by springtime in Norway.

It was only to be expected that the first appearance of snow-drops or yellow crocus in the melting snow, the arrival of the swallows with the first sunny warmth, the first song of the euekoo, should win the friendly interest of so many people. This interest did not wane with the development of scientific knowledge, and on the contrary took a new form, with accurate observing and recording—thus Phenology came into being.

Phenological observations have been made for many years in several European countries, but especially in Germany and Britain. While recent phenological material from Germany has not been received as yet, the 1946-47 British phenological report—57th of a series—was issued in 1948.